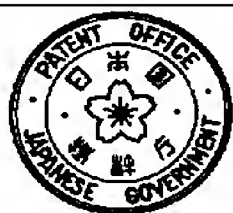


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(71) Applicant: **KOBE STEEL LTD**

(72) Inventor: **KASHIMA TAKAHIRO**

**TOYODA TETSUO**

(54) **HIGH STRENGTH AND LOW YIELD RATIO  
HOT ROLLED STEEL SHEET FOR PIPE AND  
ITS PRODUCTION**

(57) Abstract:

PROBLEM TO BE SOLVED: To produce a steel sheet low in a yield ratio and furthermore small in the amt. of YS to be reduced after tube making and to provide a method for producing the same.

SOLUTION: This steel sheet has a compsn. contg., by weight, 0.02 to 0.12% C, 0.1 to 1.5% Si,  $\leq 2.0\%$  Mn,  $\leq 0.05\%$  P,  $\leq 0.01\%$  S and 0.01 to 0.10% Al, further-

more contg. 0.1 to 1.5% Mo+Cr or moreover contd. prescribed amounts of one or more kinds among Cu, Ni, Ti, Nb, V, Ca and rare earth metals, and the balance Fe with inevitable impurities and has a structure essentially consisting of martensite and ferrite by 1 to 20 area %. As for its producing method, the steel having the above components is heated at 1000 to 1300 °C, after that, hot rolling is finished in the temp. range of 750 to 950 °C, and it is cooled to a coiling temp. at a cooling rate of 10 to 50 °C/s and is coiled in the temp. range of 480 to 600 °C.

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